

Notice of Allowability

Application No.

10/749,020

Examiner

Eric B. Chen

Applicant(s)

CLEMENTI ET AL.

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 19 April 2006.
2. ☒ The allowed claim(s) is/are 1-8, 14-19 and 22-27.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☒ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


SHAMIM AHMED
PRIMARY EXAMINER

REASONS FOR ALLOWANCE

1. Claims 1-8, 14-19, and 22-27 are allowed.
2. The following is a statement of reasons for the indication of allowable subject matter for claim 1: the prior art fails to teach or suggest defining said first layer of conductive material in order to form a plurality of *alternated stripes which form first floating gates above pairs of active areas* alternated by active areas lacking stripes. The closest prior art, Kim, discloses an etch back technique for stripes (4/6), producing a rougher surface (column 2, lines 37-44; Figure 1B). Similarly, Hsue (U.S. Patent No. 5,310,693) discloses stripes (18/14) with sidewall spacers (16) (Figures 4-5) with no planarization of stripes (18/14). However, there is no motivation or suggestion of polishing said layer of a third material together with said alternated stripes and said spacers to the same planar level, as in the context of claim 1.
3. The following is a statement of reasons for the indication of allowable subject matter for claim 14: the prior art fails to teach or suggest polishing the stripes and spacers to the same planar level, as discussed above.
4. The following is a statement of reasons for the indication of allowable subject matter for claims 15 and 22: the prior art fails to teach or suggest that the first and second stripes are formed from polysilicon material. The closest prior art, Huang, discloses the first (52) and second stripes (62) as either an oxide or nitride masking material (column 2, lines 54-58; column 3, lines 25-28). Moreover, Wolf et al., *Silicon Processing for the VLSI Era*, Vol. 1, Lattice Press (1986) teaches that polysilicon is widely used for electrodes and interconnections (page 175). However, there is no

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suggestion or motivation that the first and second stripes are formed from polysilicon material, as in the context of claims 15 and 22.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Chen whose telephone number is (571) 272-2947. The examiner can normally be reached on Monday through Friday, 8AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine G. Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EBC

April 28, 2006

EBC


SHAMIM AHMED
PRIMARY EXAMINER